

# Neonatal Abstinence Syndrome Surveillance in West Virginia

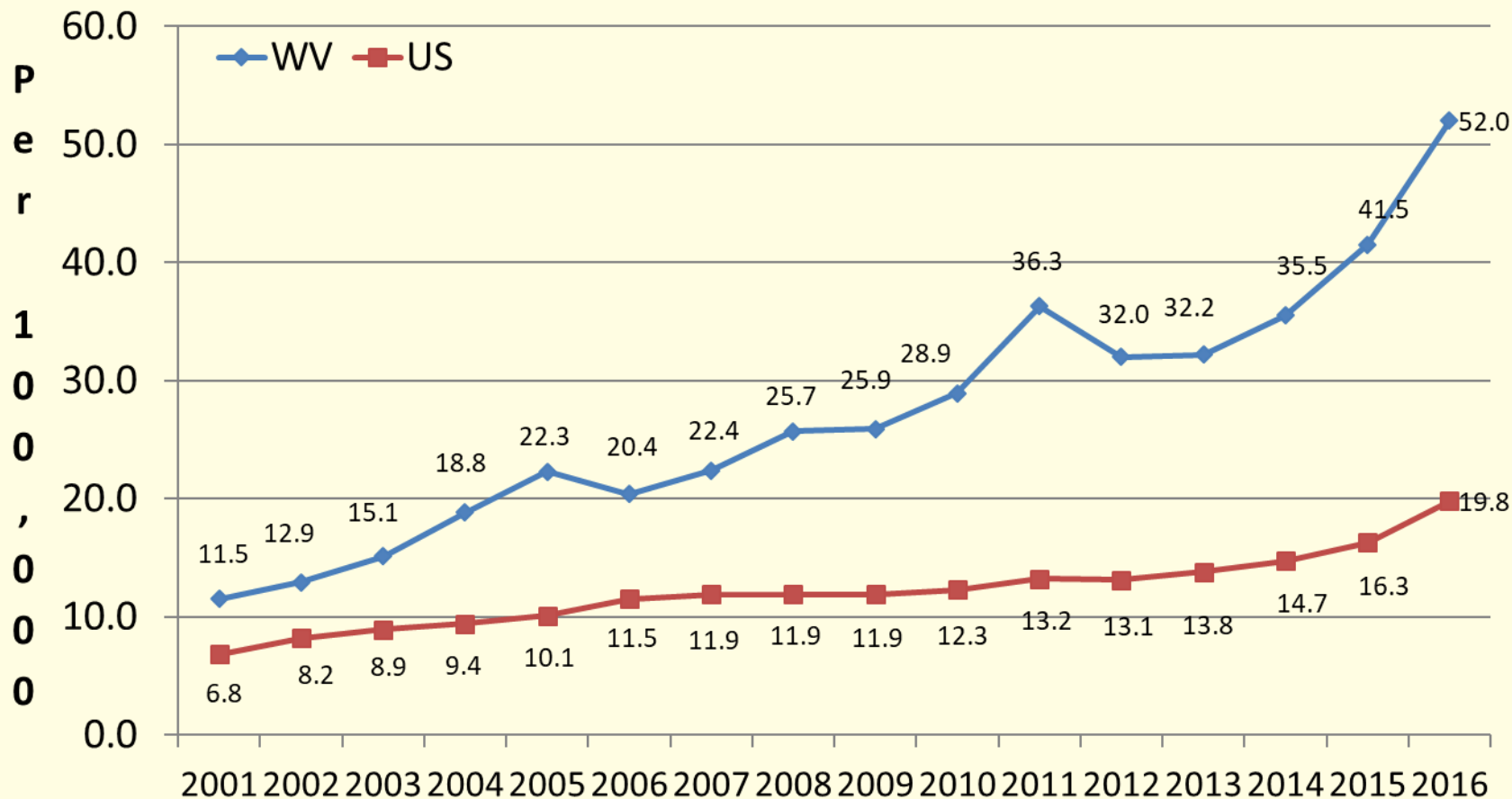
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April 13, 2018



- Crisis in West Virginia
- Initial challenges
- Defining the syndrome
- Developing a tool for measurement
- Using the data
- New challenges

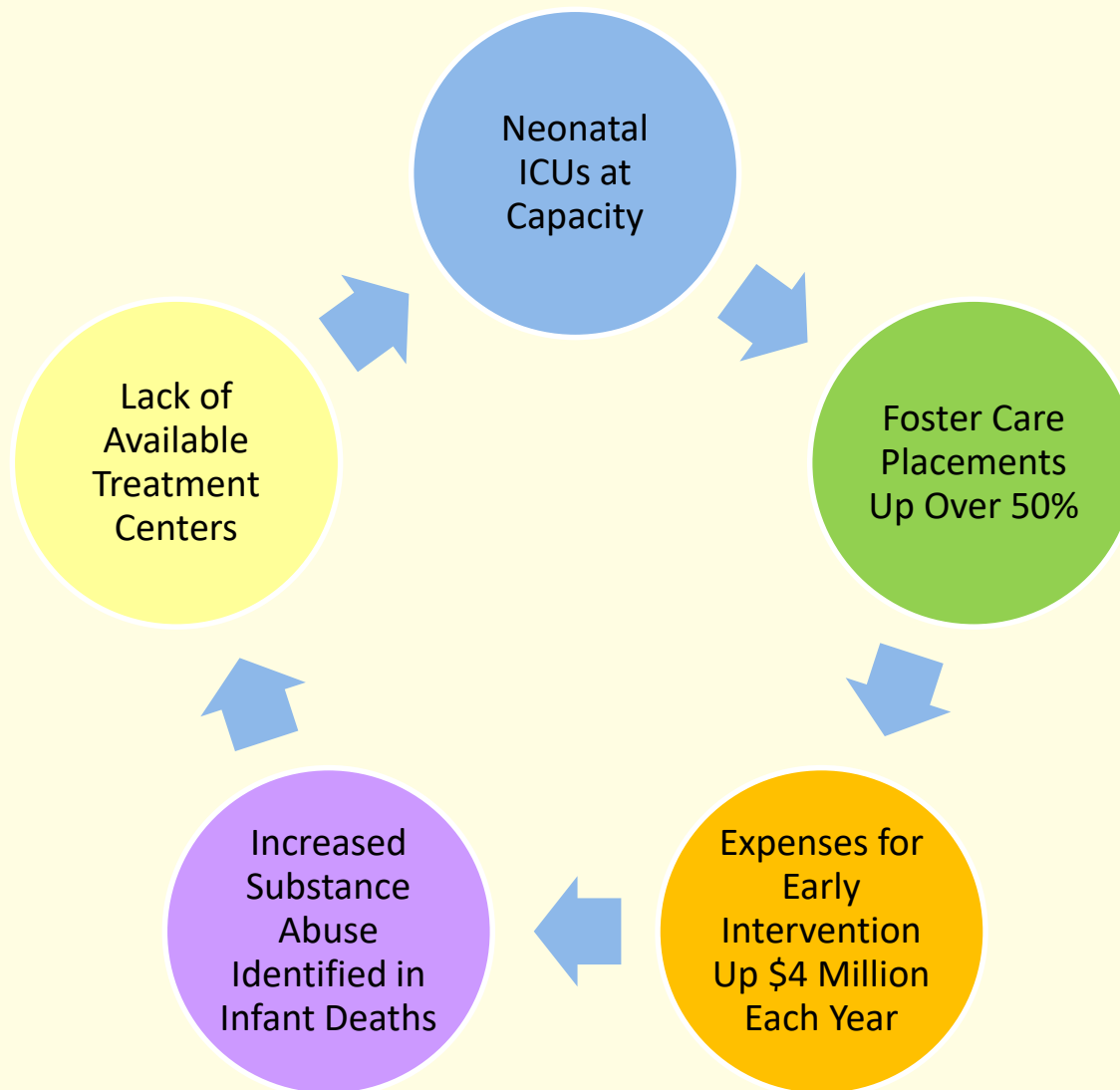
# West Virginia versus United States

## 2001-2016 Resident Drug Overdose Mortality Rates West Virginia and United States

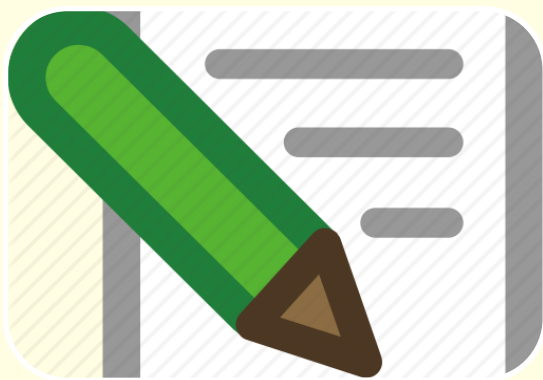


Data Source: WV Health Statistics Center, Vital Surveillance System and CDC Wonder  
Rates are age-adjusted to the 2000 US Standard Million

# Maternal and Child Health Impact



# Initial Challenges



Data



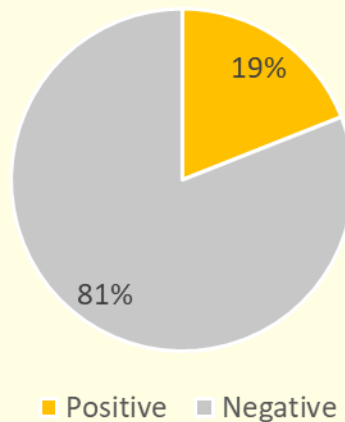
Infrastructure



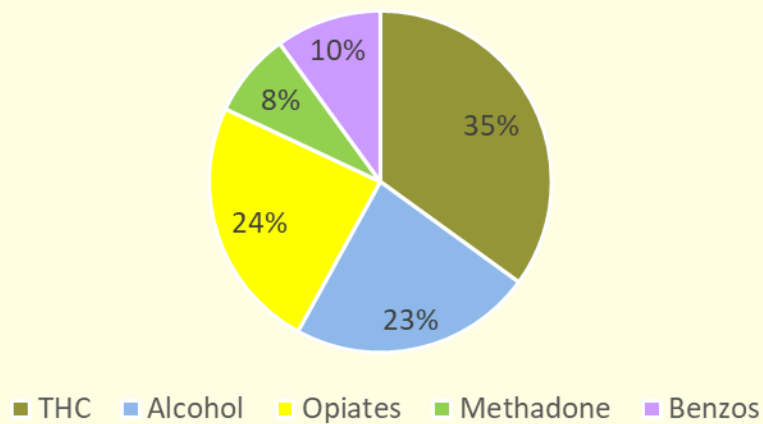
Expertise

# Quest to Understand, WV Cord Study 2009

## 759 Total Cords



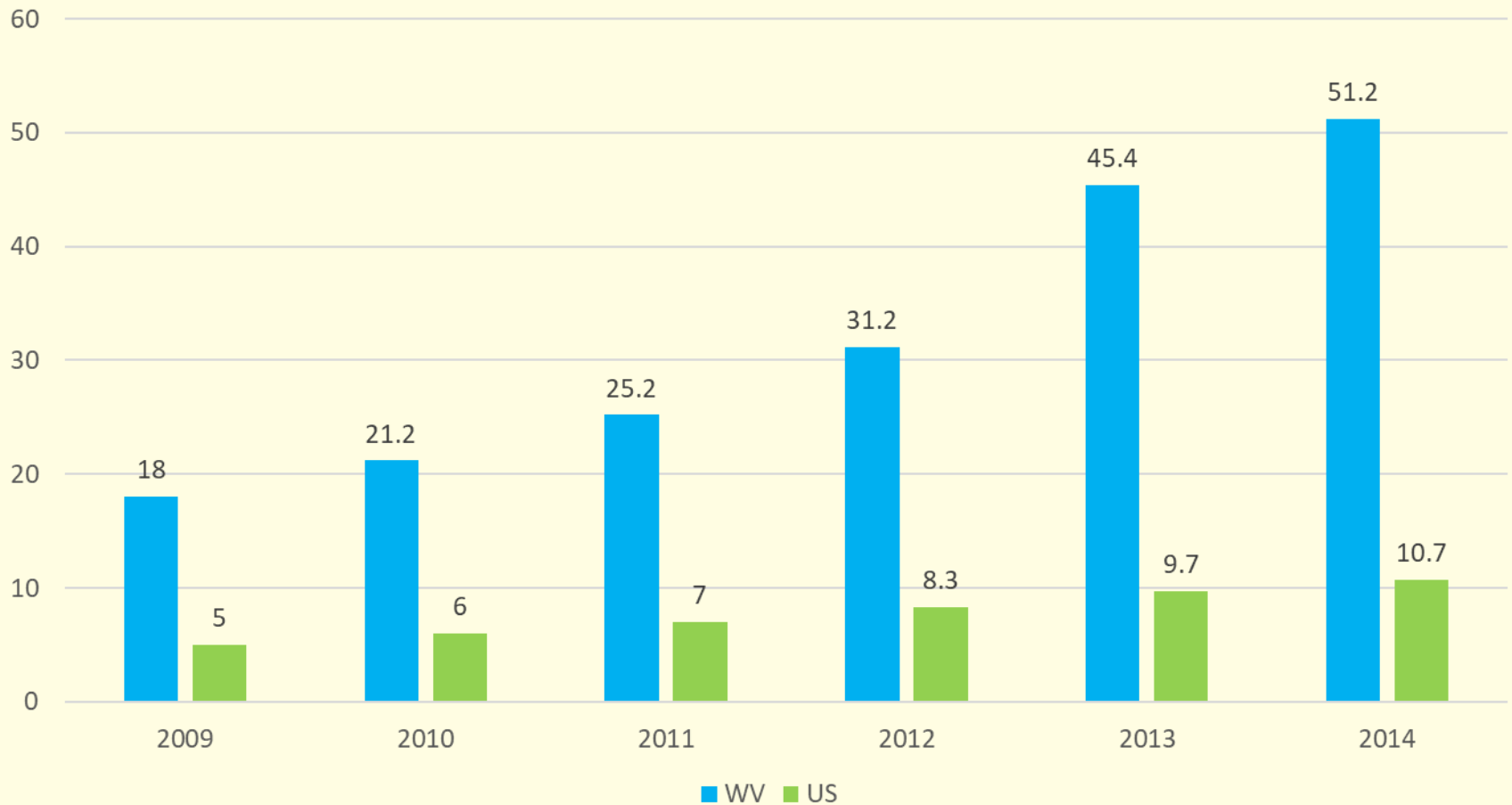
## Drugs



Source: Stitley, Michael, MD, et.al.  
"Prevalence of Drug Use in Pregnant  
West Virginia Patients," *West  
Virginia Medical Journal*, Vol. 106,  
No. 4, 2010.

# Other Available Data

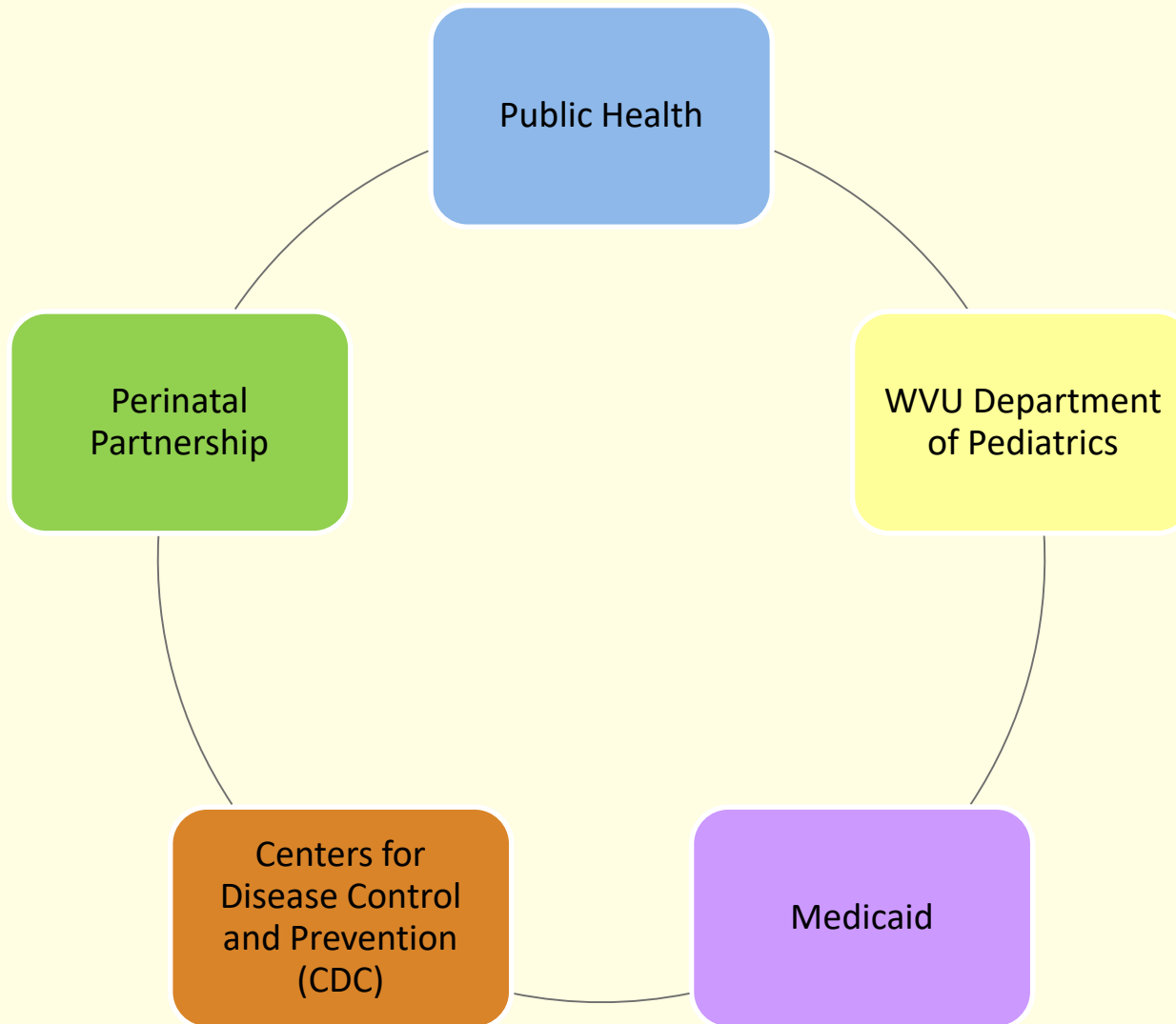
## Rate of Infants Born with NAS per 1,000 Delivery Hospitalizations



Source: HCUP – State Inpatient Databases

<https://mchb.tvisdata.hrsa.gov/PrioritiesAndMeasures/NationalOutcomeMeasures>

# Critical Partnerships





# Perinatal Partnership

- Founded in 2006 to bring together individuals and organizations involved in all aspects of perinatal care.
- State agencies work side by side with providers as members of this organization to work on critical issues.
- The Partnership formed the Substance Use in Pregnancy Committee to:
  - Make policy recommendations;
  - Identify best practices; and
  - Develop a collaborative and coordinated approach to best meet the needs of this high risk population.

# Standardized Definition for Diagnosis

- In September 2014, West Virginia neonatologists and pediatricians met with coders and members of the Perinatal Partnership to develop a standardized definition for neonatal withdrawal and guidance on documenting exposure and withdrawal in newborns.
  - Neonatal Abstinence Syndrome (NAS) includes neonatal withdrawal from many substances, not just opiates;
  - It is exposure with clinical symptoms; and
  - It is *not* limited to those cases that require pharmacological treatment.
- All birthing centers were trained to use this definition.

# The Birth Score Program

- Partnership between the DHHR, BPH, Office of Maternal Child Health and the WVU Department of Pediatrics.
- In 1998, the State was authorized to establish and implement the Program, which requires hospitals, birthing facilities, and persons attending a birth to ensure that a birth score is determined.
- Identifies infants at greatest risk for health problems.
- Expands capacity to meet required "child find" responsibilities.
- Significant contribution to the reduction of mortality among infants who are one month to one year of age.
- Nearly all infants (over 98%) receive a birth score.
- Used this infrastructure to collect NAS data beginning October 2016.

# Questions Asked on Birth Score

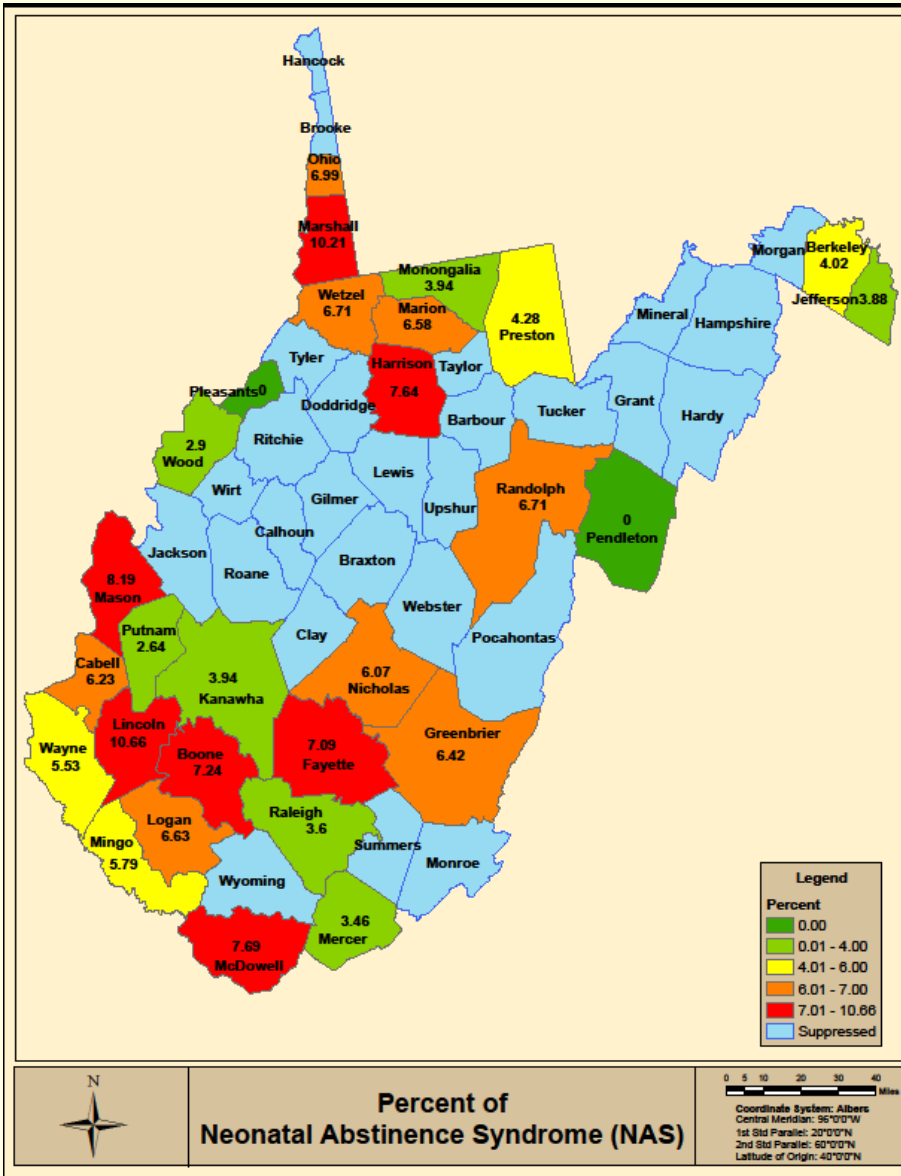
Intrauterine Substance Exposure (includes any medication prescribed by a physician during pregnancy).

- Yes/No (if no, questions below will not be available)
  - If yes, then check all that apply
    - Self-reported
    - Documented in prenatal record
    - Positive maternal drug test
    - Unknown
    - Other
- Infant with clinical signs consistent with NAS diagnosis\*?
  - Yes/No

# Capacity to Analyze and Use Data

- Expressed concern during sidebar conversation at a CDC site visit that DHHR lacked capacity to use data to full potential.
- Prevention for States (PFS) grant from CDC now provides data support via funding for an epidemiologist/statistician at the Birth Score Office.
- Enables multiple ongoing submissions for publication, mapping, and press releases.
- Data is used for program planning, specifically to determine expansion sites for West Virginia's treatment program for pregnant women with substance use disorder.

# Results



## Statewide Rates:

- Intrauterine Substance Exposure: 143 per 1,000
  - NAS: 50.6 per 1,000
- \* Data is for WV residents

# New Challenges

- Balancing the need to use the data in a variety of ways and maintain appropriate confidentiality.
- Using the data to facilitate quality improvement opportunities in hospitals.
- Partnering with DHHR's Bureau for Children and Families to ensure that the provider community does not accidentally increase child protective services reports of the same information for the same infant.
- Partnering with researchers to develop longitudinal studies.

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